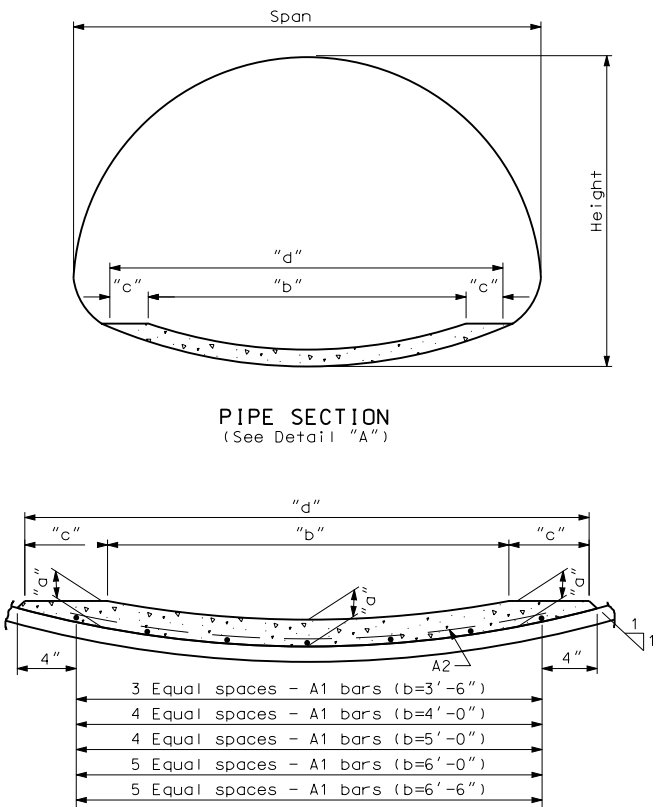


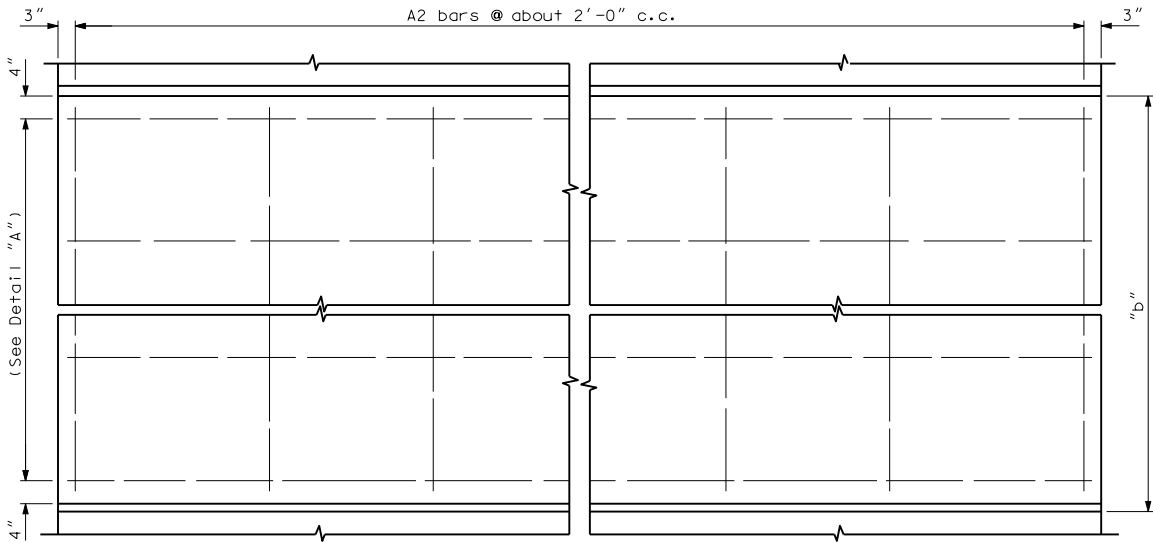
CONCRETE FLOOR FOR
STRUCTURAL PLATE PIPE ARCHES

D-638-11

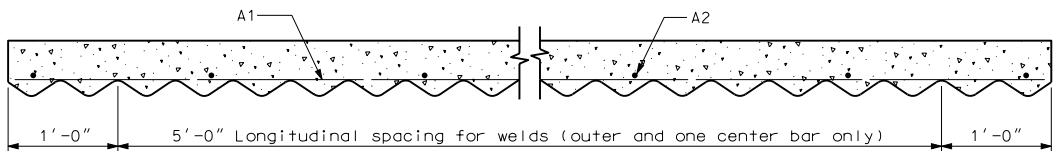


DETAIL "A"

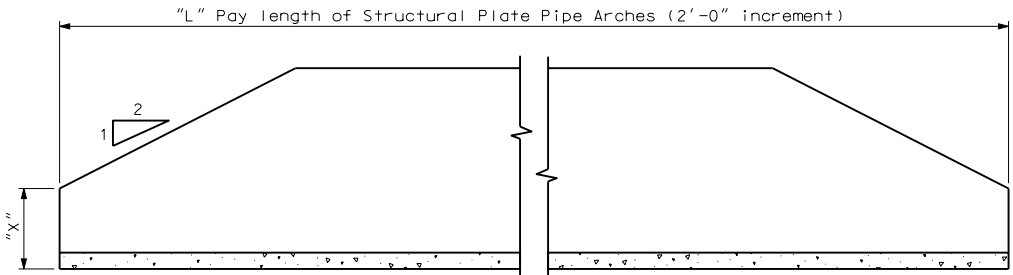
REINFORCING BARS			
BAR	SIZE	LENGTH	SHAPE
A1	4	"L" minus 4"	Straight
A2	4	(See Detail "A")	Straight



PLAN
(Concrete floor)



SECTION ON CENTER LINE



LONGITUDINAL SECTION

NOTES:

- Bend A2 bars in field to fit curve of pipe culvert.
All field welding shall be considered incidental to the price bid per linear foot of floor.
Use 1'-8" lap to splice all A1 bars over 40' long.
All A1 bars shall be welded to pipe corrugation at 5'-0" intervals with 1"x1/4" fillet welds. Welds on adjacent bars shall be staggered.
Cost of the reinforced concrete floor shall be included in the unit price bid for Structural Plate Pipe Arch.
Concrete floor shall not be placed until after the fill has been completed.
All concrete shall be Class AE-3.

PIPE DIMENSIONS				CONCRETE FLOOR					
AREA SQ. FT.	SPAN	HEIGHT	DIMENSION "x"	DIMENSION "d"	DIMENSION "b"	DIMENSION "c"	DIMENSION "d"	QUANTITIES PER FOOT OF LENGTH	
								CONC. CL. AE-3 CU. YD.	REINF. STEEL LB. *
22	6'-1"	4'-7"	2'-3"	4"	3'-6"	6"	4'-6"	0.0660	3.95
24	6'-4"	4'-9"	2'-1"	4"	3'-6"	7"	4'-8"	0.0666	4.01
26	6'-9"	4'-11"	2'-5"	4"	4'-0"	7"	5'-2"	0.0752	4.84
28	7'-0"	5'-1"	2'-3"	4"	4'-0"	8"	5'-4"	0.0767	4.90
31	7'-3"	5'-3"	2'-1"	4"	4'-0"	9"	5'-6"	0.0791	4.95
33	7'-8"	5'-5"	2'-4"	4"	5'-0"	7"	6'-2"	0.0907	5.17
35	7'-11"	5'-7"	2'-2"	4"	5'-0"	8"	6'-4"	0.0921	5.23
38	8'-2"	5'-9"	2'-4"	4"	5'-0"	9"	6'-6"	0.0945	5.29
40	8'-7"	5'-11"	2'-4"	4"	6'-0"	7"	7'-2"	0.1057	6.18
43	8'-10"	6'-1"	2'-2"	4"	6'-0"	8"	7'-4"	0.1075	6.23
46	9'-4"	6'-3"	2'-5"	4"	6'-6"	8"	7'-10"	0.1152	6.40
49	9'-6"	6'-5"	2'-4"	4"	6'-6"	9"	8'-0"	0.1165	6.45
52	9'-9"	6'-7"	2'-2"	4"	6'-6"	10"	8'-2"	0.1196	6.51

* Add 1 lb. per bar splice

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-1-86	
REVISIONS	
DATE	CHANGE
06-03-03	Layout revision
12-01-04	PE Stamp added

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